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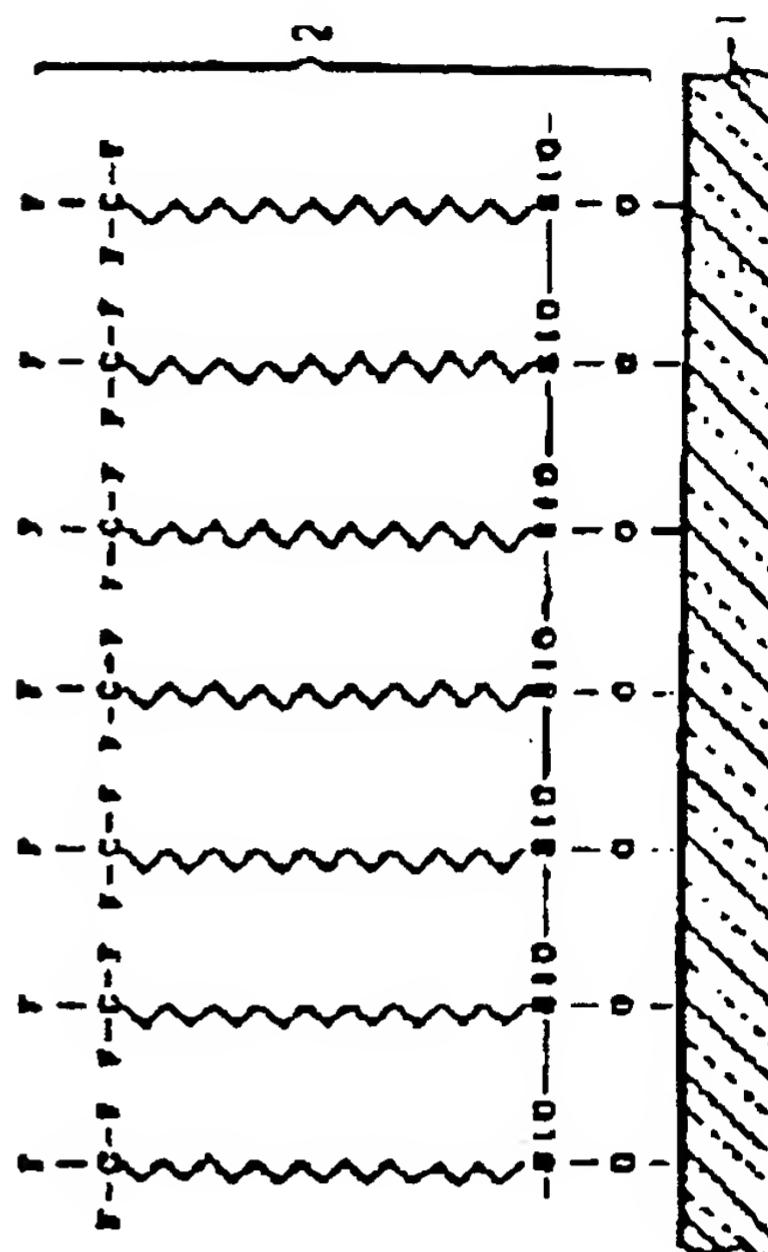
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TITLE : WATER-REPELLENT OIL-REPELLENT
STAINPROOF FILM AND
MANUFACTURE THEREOF



ABSTRACT : PURPOSE: To form a film having an extremely high water-repellent oil-repellent stainproof effect without damaging gloss original to a base body by forming irregularities less than the wavelength (400nm) of visible light to the surface of a base material and forming a carbon fluoride group monomolecular film in film thickness at a nanometer on the surface of the base material through a siloxane bond.

CONSTITUTION: Irregularities in approximately 0.1 micron are formed to the surface of a glass plate, and the glass plate is dipped in a solution, in which a surface-active agent such as $\text{CF}_3(\text{CF}_2)_7(\text{CH}_2)_2\text{SiCl}_3$ is diluted into an organic solvent. A natural oxide film is formed on the surface of the glass plate, and a large number of hydroxyl groups are contained in the surface of the oxide film, thus generating dehydrochlorination reaction, then shaping a carbon fluoride monomolecular film on the surface of a base body through a siloxane bond.

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